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## Patent Abstracts of Japan

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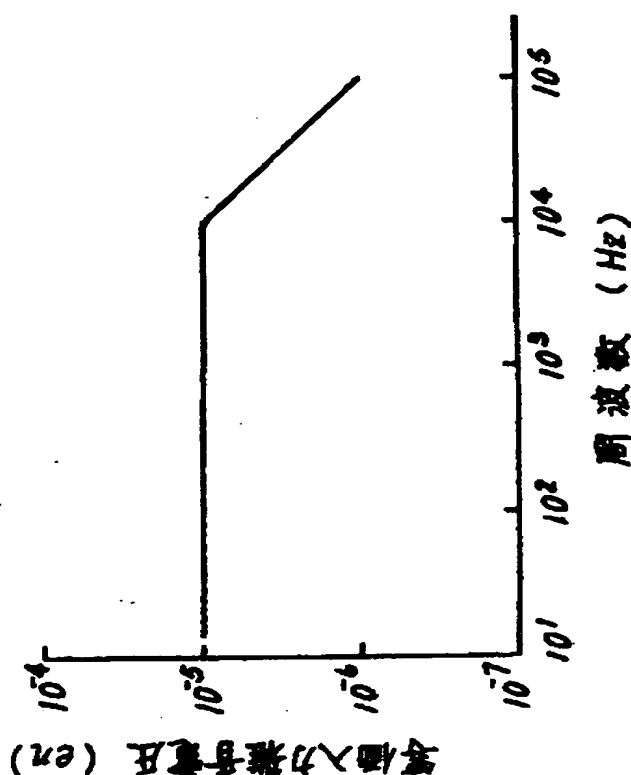
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APPLICATION NUMBER : 56103530

APPLICANT : NEC CORP;

INVENTOR : MIKOSHIBA KEIMEI;

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TITLE : GENERATING METHOD OF WHITE NOISE



ABSTRACT : PURPOSE: To easily obtain a white noise source, by using a depletion type MOS field effect transistor (D-MOST) in a surface inverted area.

CONSTITUTION: When D-MOST is an N channel type, positive voltage against the source electrode is applied to the drain electrode, and negative voltage against a semiconductor substrate is applied to the gate electrode so that an inverted layer of an opposite conductive type, that is to say, a P type layer can be formed. As a result, in the end part of a drain area formed on the semiconductor substrate, a regenerating and recoupling (g-r) noise is generated. When this noise is fetched from the drain electrode, a white noise is obtained. When D-MOST is a D channel type, negative voltage against the source electrode is applied to the drain electrode, positive voltage against the semiconductor substrate is applied to the gate electrode, the inverted layer is formed on the channel surface, and the (g-r) noise generated in the end part of the drain area is fetched.

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